

### What is a Wildlife Action Plan?

*Congress asked each state to develop a wildlife action plan, known technically as a comprehensive wildlife conservation strategy. These proactive plans examine the health of wildlife and prescribe actions to conserve wildlife and vital habitat before they become too rare and costly to protect. The Virginia Wildlife Action Plan is the Commonwealth's tool for keeping common species common and sustaining our rich and diverse wildlife resources.*

### Planning approach

Virginia's Wildlife Action Plan united its natural resource agencies and citizens through a common vision and concept for the conservation of the Commonwealth's wildlife and the habitats in which they live. It also provides a means for prioritizing actions and spending for the greatest return.

Led by personnel from the Virginia Department of Game and Inland Fisheries (DGIF), the Virginia Wildlife Action Plan was developed with input from a wide array of public and private agencies and organizations. A steering committee composed of representatives of state and federal agencies, private conservation organizations and land management entities provided guidance throughout the development of the plan. Technical committees comprised of more than 50 scientific experts from around Virginia provided input into the development of the list of species of greatest conserva-

tion need, the identification of the habitats that support them, the problems these resources face and important conservation actions needed to address these threats.

An important component of the development of the Virginia Wildlife Action Plan was the participation of citizens from around the state. Efforts to involve Virginians included numerous presentations to groups throughout Virginia, news releases, periodic mailings, fact sheets, radio and newspaper interviews, and a dedicated project Web site. In fact, the Wildlife Action Plan project Web site was used as the primary tool for soliciting comments from the public. Twenty-two meetings were held across the Commonwealth. Nearly 200 people attended — some were there as individual citizens and others were representatives of more than 100 agencies and organizations. At these meetings, participants were asked to identify what, in their opinion, was working well in Virginia in wildlife conservation and what improvements could be made. They were also asked to identify and rank the top issues facing wildlife and habitats in their communities now and in the next decade, along with local solutions to address those problems.

### Wildlife highlights

The Action Plan identifies 925 species of greatest conservation need, representing a broad array of wildlife, and focuses on the habitats that support them, such as caves, high elevation forests, coastal marshes and barrier islands. A full

**Table A-14. Imperiled Aquatic Species in the Clinch, Holston and Powell Watersheds**

Wildlife	Total number	Species of conservation concern*	Threatened/ endangered
Mussels	89	63	36
Snails	?	96	7
Crayfish	?	14	0
Insects	20,000+	290	9
Fish	210	97	20
Amphibians	74	32	4
Reptiles	61	28	8
Birds	374**	96	12
Mammals	85	24	10
Other Invertebrates	?	185	5
<b>Totals</b>	<b>20,893++</b>	<b>925</b>	<b>111</b>

\* Each state used its own criteria for this category. Virginia focused on species that demonstrated some level of rarity or risk of imperilment, e.g., subject to habitat loss, impacted by pollution, currently at low population levels. These species were further grouped into four tiers of relative imperilment, with the top tier including those of "critical conservation need" and the fourth tier including those of "moderate conservation need." The list does include some wildlife officially listed as threatened or endangered within the Commonwealth.

\*\* Includes breeding and most migratory birds.

70 percent of the species on this list of greatest conservation need are invertebrates (insects, mussels, snails, crayfish, etc.), about which very little is known. Sixty percent of the species on the list are found in aquatic habitats. The species are grouped into four tiers of relative imperilment, based on the level and degree of immediate conservation action needed. The Clinch, Holston, and Powell watersheds in southwestern Virginia contain many of our most imperiled aquatic species (see Table A-14).

### **Primary challenges for conserving wildlife in Virginia**

Habitat destruction and fragmentation dominate the list of problems facing terrestrial wildlife in the Commonwealth. For Virginia's aquatic wildlife, the Action Plan identifies certain agricultural and forestry practices that have greatly affected water and habitat quality. Pollution and habitat changes from industry and municipal development are also critical issues for aquatic species.

Many grassland wildlife species are experiencing dramatic declines in populations because of the loss of grassland and savannah habitats across the Commonwealth. These important habitats are being converted to other agricultural crops (including cool season grasses), are lost as farms are converted for municipal uses, and are replaced by other habitats when farmlands are abandoned and allowed to mature into forested lands.

Habitat degradation in the rivers of southwestern Virginia resulting from certain mineral extraction and agricultural practices and from the impoundment of these rivers downstream in Tennessee, has significantly impacted this biologically diverse "hot spot" in the United States. Over one-half of the freshwater mussel species found in this watershed are now listed as threatened or endangered. These species, which are important food sources for other wildlife and which serve as filterers in these rivers, are highly dependent on good water quality.

### **Recommended actions to conserve Virginia's wildlife**

Perhaps most importantly, the Action Plan identifies the actions needed to conserve these species on a regional basis. All of the conservation actions fit into one of eight categories: coordination, education and outreach, species management, habitat management, regulations/policy/law, land protection, enforcement, and planning. Effective conservation does not mean just managing the species and their habitats. Examples of conservation actions from the Virginia Wildlife Action Plan are shown in Table A-15.

In addition to identifying actions that address problems facing wildlife, a number of key themes regarding conservation in Virginia recurred throughout the development meetings. These themes include:

- Better coordination with private landowners, public agencies, and all levels of government regarding critical conservation issues;
- Improved communication with and education of policy makers at all levels of government;
- Increased funding for and participation in conservation programs;
- Review and revision of existing regulations and standards;
- Establishment of dedicated permanent funding for conservation of all wildlife; and
- Encouragement of counties and municipalities to more comprehensively consider wildlife and habitats in planning and development

Many research and monitoring needs for the species of greatest conservation need were identified. In fact, for many species, one of the first conservation actions will be research to identify distribution, habitat needs, and threats. Future monitoring of the species and their habitats is necessary to measure our success during implementation.

### **Implementation and success of Virginia's Wildlife Action Plan**

As throughout the development of the Action Plan, implementation of the recommendations involves a wide range of partners. This is a plan for all of Virginia, not just the DGIF. Working groups are being organized to facilitate putting the recommendations into action.

The success of the implementation of the Action Plan will be monitored, and changes will be made as needed. The completion of the document certainly does not mark the end of the learning process. In many cases, it is only the beginning. While the work of conserving wildlife can be challenging, it is possible — as seen from the successful return of the bald eagle and the white-tailed deer. And, this Action Plan provides the needed direction.

The entire Virginia Wildlife Action Plan may be found online at the VDGIIF Web site ([www.dgif.virginia.gov](http://www.dgif.virginia.gov)). For more information, a CD copy of the Action Plan, or for assistance integrating the Action Plan into other planning and conservation efforts, contact the VDGIIF at 804.367.4335 or at [WildlifePlan@dgif.virginia.gov](mailto:WildlifePlan@dgif.virginia.gov).

Table A-15. Virginia Wildlife Action Plan Conservation Initiatives

Highlighted Habitats	Wildlife (examples)	Issue (examples)	Action (examples)
Barrier Islands  Ownership: mix of public/private	Piping plover (bird)  American oyster-catcher (bird)  Northern diamond-backed terrapin	<ul style="list-style-type: none"> <li>• Recreational use</li> <li>• Predation by introduced species</li> </ul>	<ul style="list-style-type: none"> <li>• Work with partners and local communities to provide greater outreach to beach users about the need to minimize impacts.</li> <li>• Remove introduced predators, particularly foxes and raccoons, on public and private lands as necessary to reduce impacts.</li> </ul>
Upper Tennessee watershed (Clinch, Powell, and Holston Rivers)  Ownership: mix of public/private	Birdwing pearly mussel (freshwater mussel)  Wounded darter (fish)  Eastern hellbender (amphibian)  Clinch River crayfish (crayfish)	<ul style="list-style-type: none"> <li>• Sedimentation</li> <li>• Channel and shoreline alteration</li> <li>• Organic pollutants</li> </ul>	<ul style="list-style-type: none"> <li>• Provide incentives to private landowners to restore and maintain shoreline and stream habitats</li> <li>• Protect vegetated stream buffers to limit sedimentation</li> <li>• Work with government agencies and industries on strategies to reduce contaminant discharges.</li> </ul>
Grassland  Ownership: mix of public/private	Grasshopper sparrow (bird)  Upland sandpiper (bird)  Eastern slender glass lizard (reptile)	<ul style="list-style-type: none"> <li>• Habitat fragmentation and degradation</li> <li>• Exotic species</li> </ul>	<ul style="list-style-type: none"> <li>• Improve incentives to private landowners to restore and maintain large patches of grassland habitats</li> <li>• Restore warm season grasses and reduce the use of cool season grasses</li> </ul>